

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Francois Mach  
APPLICATION Not yet assigned EXAMINER: Not yet assigned  
NUMBER:  
FILING DATE: January 23, 2002 ART UNIT: Not yet assigned  
FOR: *Treatment of Multiple Sclerosis With Statins (HMG-CoA Reductase Inhibitors)*

January 23, 2002  
Boston, Massachusetts

BOX PATENT APPLICATION  
Commissioner for Patents  
Washington, D. C. 20231

**PRELIMINARY AMENDMENT**

Prior to an action on the merits, Applicant respectfully requests that the following amendments be entered in the above-referenced application.

***In the Specification:***

Please replace the title with the following:

**TREATMENT OF MULTIPLE SCLEROSIS WITH STATINS (HMG-COa  
REDUCTASE INHIBITORS)**

*Pursuant to 37 CFR 1.121(b)(1)(iii), a marked up version of the specification showing the changes made appears as Appendix A of this Amendment.*

***In the Claims:***

Please cancel claim 1 without prejudice or disclaimer.

Please add the following new claims:

94. (new) A method of treating a patient afflicted with multiple sclerosis, comprising administering to said patient a statin compound or a functionally or structurally equivalent molecule thereof, in an amount effective to treat or at least partially alleviate the symptoms of multiple sclerosis.
95. (new) A method of treating multiple sclerosis, comprising administration of at least one statin, or a functionally or structurally equivalent molecule thereof, to a subject in an

amount effective to modulate IFN- $\gamma$ -induced MHC class II expression and/or CD40 expression in the subject, such that multiple sclerosis symptoms are treated or at least partially alleviated.

96. (new) A method of treating multiple sclerosis, comprising administering to a subject having multiple sclerosis at least one statin or a functionally or structurally equivalent molecule thereof, in an amount which is effective to inhibit IFN- $\gamma$ -inducible MHC class II expression and/or CD40 expression such that inflammation is reduced.
97. (new) The method of any one of claims 94, 95 or 96, wherein said patient does not suffer from hypercholesterolemia.
98. (new) The method of any one of claims 94, 95 or 96, wherein said statin is selected from the group consisting of Compactin, Atorvastatin, Lovastatin, Pravastatin, Fluvastatin, Mevastatin, Cerivastatin, Rosuvastatin and Simvastatin; and combinations thereof.
99. (new) The method of any one of claims 94, 95 or 96, wherein said statin is administered in conjunction with a second multiple sclerosis drug.
100. (new) The method of claim 99, wherein said second multiple sclerosis drug is  $\beta$ -interferon or copaxone.
101. (new) The method of any one of claims 94, 95 or 96, wherein said statin or functionally or structurally equivalent molecule is administered orally.
102. (new) The method of any one of claims 94, 95 or 96, wherein said amount is at least about 10 to 80 mg per day.
103. (new) The method of any one of claims 94, 95 or 96, wherein said amount is at least about 20 to 40 mg per day.
104. (new) A kit for treating a patient having multiple sclerosis, comprising a therapeutically effective dose of an agent for treating or at least partially alleviating the symptoms of multiple sclerosis, and a statin or a functionally or structurally equivalent molecule thereof, either in the same or separate packaging, and instructions for its use.
105. (new) The kit of claim 104, wherein said agent for treating multiple sclerosis is selected from the group consisting of  $\beta$ -interferon and copaxone.

106. (new)The kit of claim 104, wherein said statin is selected from the group consisting of Compactin, Atorvastatin, Lovastatin, Pravastatin, Fluvastatin, Mevastatin, Cerivastatin, Rosuvastatin and Simvastatin; and combinations thereof.
107. (new)The kit of claim 104, wherein the dose of statin is at least about 10 to 80 mg per day.
108. (new)The kit of claim 104, wherein the dose of statin is at least about 20 to 40 mg per day.

*Pursuant to 37 CFR 1.121(c)(1)(ii), a marked up version of the claims showing the changes made appears as Appendix B of this Amendment.*

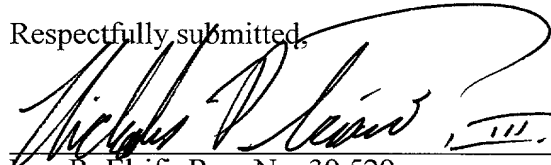
#### REMARKS

The cancellation of and/or amendments to the claims are being made solely to expedite prosecution of this application. Applicant reserves the option to further prosecute the same or similar claims in this or in another patent application. No new matter is added. *After entry of this amendment, claims 94-108 are in the case.*

### CONCLUSION

On the basis of the foregoing amendments, Applicant respectfully submits that the pending claims are in condition for allowance. If there are any questions regarding these amendments and remarks, the Examiner is encouraged to contact either of the undersigned at the telephone number provided below.

Respectfully submitted,



Ivor R. Elrifi, Reg. No. 39,529

Nicholas P. Triano III, Reg. No. 36,397

Attorneys for Applicant(s)

MINTZ, LEVIN, COHN, FERRIS, GLOVSKY  
and POPEO, P.C.

One Financial Center

Boston, Massachusetts 02111

Tel: (617) 542-6000

Fax: (617) 542-2241

Dated: January 23, 2002

**Appendix A: marked up version of the specification showing the changes made**

***In the Specification:***

Please replace the title with the following:

**~~STATINS (HMG-COa REDUCTASE INHIBITORS) AS A NOVEL TYPE OF  
IMMUNOMODULATOR, IMMUNOSUPPRESSOR AND ANTI-INFLAMMATORY  
AGENT-TREATMENT OF MULTIPLE SCLEROSIS WITH STATINS (HMG-COa  
REDUCTASE INHIBITORS)~~**

**Appendix B: marked up version of the claims showing the changes made*****In the Claims:***

Please cancel claim 1 without prejudice or disclaimer.

Please add the following new claims:

94. (new)A method of treating a patient afflicted with multiple sclerosis, comprising administering to said patient a statin compound or a functionally or structurally equivalent molecule thereof, in an amount effective to treat or at least partially alleviate the symptoms of multiple sclerosis.
95. (new)A method of treating multiple sclerosis, comprising administration of at least one statin, or a functionally or structurally equivalent molecule thereof, to a subject in an amount effective to modulate IFN- $\gamma$ -induced MHC class II expression and/or CD40 expression in the subject, such that multiple sclerosis symptoms are treated or at least partially alleviated.
96. (new)A method of treating multiple sclerosis, comprising administering to a subject having multiple sclerosis at least one statin or a functionally or structurally equivalent molecule thereof, in an amount which is effective to inhibit IFN- $\gamma$ -inducible MHC class II expression and/or CD40 expression such that inflammation is reduced.
97. (new)The method of any one of claims 94, 95 or 96, wherein said patient does not suffer from hypercholesterolemia.
98. (new)The method of any one of claims 94, 95 or 96, wherein said statin is selected from the group consisting of Compactin, Atorvastatin, Lovastatin, Pravastatin, Fluvastatin, Mevastatin, Cerivastatin, Rosuvastatin and Simvastatin; and combinations thereof.
99. (new)The method of any one of claims 94, 95 or 96, wherein said statin is administered in conjunction with a second multiple sclerosis drug.
100. (new)The method of claim 99, wherein said second multiple sclerosis drug is  $\beta$ -interferon or copaxone.
101. (new)The method of any one of claims 94, 95 or 96, wherein said statin or functionally or structurally equivalent molecule is administered orally.

102. (new)The method of any one of claims 94, 95 or 96, wherein said amount is at least about 10 to 80 mg per day.
103. (new)The method of any one of claims 94, 95 or 96, wherein said amount is at least about 20 to 40 mg per day.
104. (new)A kit for treating a patient having multiple sclerosis, comprising a therapeutically effective dose of an agent for treating or at least partially alleviating the symptoms of multiple sclerosis, and a statin or a functionally or structurally equivalent molecule thereof, either in the same or separate packaging, and instructions for its use.
105. (new)The kit of claim 104, wherein said agent for treating multiple sclerosis is selected from the group consisting of  $\beta$ -interferon and copaxone.
106. (new)The kit of claim 104, wherein said statin is selected from the group consisting of Compactin, Atorvastatin, Lovastatin, Pravastatin, Fluvastatin, Mevastatin, Cerivastatin, Rosuvastatin and Simvastatin; and combinations thereof.
107. (new)The kit of claim 104, wherein the dose of statin is at least about 10 to 80 mg per day.
108. (new)The kit of claim 104, wherein the dose of statin is at least about 20 to 40 mg per day.